

Trauma & Orthopaedics

Extracorporeal Shockwave Therapy (ESWT)

What is ESWT?

ESWT is a technology that uses shock waves to treat chronic painful conditions of the musculoskeletal system. Extracorporeal means outside the body. One area most frequently treated with ESWT is the foot/ankle. A shock wave is an intense but short energy wave travelling faster than the speed of sound which is passed through the skin at the injured area and works by stimulating certain components within the body which accelerates the healing process. In addition to stimulating the healing process, the ESWT seems to have a direct effect on the nerves and reduces pain. The shock waves are mechanical, not electric and are generated outside of the body. It is a very low-risk procedure.

Why am I being offered ESWT?

ESWT is offered to patients who have not responded as anticipated to other conservative treatments such as painkillers, rest, ice therapy, physiotherapy or steroid injections. The benefit of the ESWT is that it can offer relief from pain and other symptoms and studies have shown the treatment to be 50-70% effective. In the foot and ankle, ESWT has been used to treat the following conditions:

- Plantar fasciitis
- Achilles tendonitis

It can also be used to treat other conditions elsewhere in the body.

What are the risks?

Most patients do experience some discomfort during the treatment but you should be able to tolerate this. It is advisable to take mild painkillers



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(paracetamol and/or codeine, if you do not have any contraindications to taking these medicines) approximately half an hour before the procedure to counteract this. Following the treatment you may experience redness, bruising, swelling and numbness to the area but these effects are rare and should resolve within a week. There is a very small risk of tendon or ligament rupture and damage to the soft tissue.

When can't you use ESWT?

You **must not** have ESWT if you:

- Are pregnant
- Are taking antiplatelet medication (such as aspirin or clopidogrel) or anticoagulants (for example warfarin or rivaroxaban)
- Have a blood clotting disorder
- Are under the age of 18
- Have been diagnosed with bone cancer
- Have a cardiac pacemaker or other cardiac device
- Have an infection in your foot
- Have a history of previous tendon or ligament rupture
- Have had steroid injections in the previous 12 weeks

These contra indications will already have been discussed with you by your consultant or healthcare professional.

Are there any alternatives?

ESWT is offered only after other conservative methods have not been successful. If ESWT fails an operation may be available but this will be discussed with you at a review appointment following ESWT.

How do I prepare for ESWT?

ESWT is a minimally invasive treatment carried out in the outpatient department. You will not need to remain overnight in hospital. You must ensure that you are available for a course of three treatments, one week apart. You can eat and drink normally before the treatment. Do not take anti-inflammatory drugs such as Ibuprofen for two weeks before your treatment and do not take any during your treatment.

Consent to treatment

Please ensure that you have read this leaflet before proceeding with the treatment as you will be asked to sign a “consent to treatment” form confirming that you understand what the treatment involves, including any risks and benefits. Please let your consultant know if you have any questions or would like any further information.

Who will perform the procedure?

Your treatment may be carried out by a foot and ankle consultant, an orthopaedic associate specialist, an advanced nurse practitioner or a physiotherapist, all of whom have undertaken specialist training to carry out the procedure.

What happens during ESWT?

The treatment will be carried out in the orthopaedic outpatients department where you will be asked to lie on your front on the couch. Your legs will be supported by a pillow (this sentence can be removed). Some ultrasound gel will be placed on the skin over the injured area and the hand piece of the ESWT device will be placed on this. The shock wave is then delivered via the hand held transducer using the gel as a conductive medium. The gel enables a tight bond between the skin and the device allowing the waves to transmit to the tissues beneath. The waves are audible. If you experience severe discomfort during the treatment please inform the health professional performing the procedure as they will be able to adjust the energy level to manage this or stop if you cannot tolerate it. The discomfort will stop at the end of the procedure. Each treatment takes approximately 3-4 minutes.

What happens after the treatment?

After the treatment you will be able to get up and walk immediately. If you feel any discomfort you can take mild painkillers to relieve this. Please avoid taking anti-inflammatory medication or ice therapy as these can interfere with the healing process. You are able to return to your usual activities including work straight away. We advise you not to undertake any strenuous or high impact activity for 48 hours following the procedure. You will be offered a follow up appointment around 12 weeks following your final session.

If you experience severe pain or any loss of function after the treatment please contact your GP or attend the nearest A&E department.

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How fast does ESWT work?

Many patients get an initial degree of improvement almost immediately, the effect is usually temporary, although not always, and is associated with an anaesthesia effect from the hyper stimulation of the tissue by the ESWT. It takes several days for the injuries to begin to heal but many patients see an improvement before the end of the second week. The healing process can however take weeks or even months to complete.

Ensuring effectiveness

The National Institute for Health and Care Excellence (NICE) would like to assess the effectiveness of this treatment and therefore every patient will be monitored before and after receiving ESWT. In order for us to comply with this monitoring we kindly request that you complete a questionnaire before your treatment starts. You will be contacted at a later date after your treatment to complete a second questionnaire.

Contact us

If you have any questions or concerns regarding ESWT please contact please contact one of the secretaries below:

Mr Dhukaram's Secretary, Jas Viridi: 024 7696 5095

Mrs Chapman's Secretary, Erin Morrow: 024 7696 5961

The Trust has access to interpreting and translation services. If you need this information in another language or format please ask and we will do our best to meet your needs.

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